

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of:	)	
	)	
Implementation of Sections 309(j) and 337 of the	)	
Communications Act of 1934 as Amended	)	
	)	
Promotion of Spectrum Efficient Technologies on	)	WT Docket No. 99-87
Certain Part 90 Frequencies	)	
	)	
Narrowbanding Memorandum Opinion and Order	)	
	)	
47 C.F.R. § 90.209(b)	)	

**REQUEST FOR WAIVER OF COMMISSION RULES  
EXPEDITED ACTION REQUESTED**

Schuylkill County, Pennsylvania (“the County”), pursuant to Section 1.925 of the Commission’s rules and the guidelines issued in the Public Notice, DA 11-1189, hereby submits this Request for Waiver of the January 1, 2013 deadline for transitioning to narrowband operations in the 150-174 MHz VHF Band as identified in the licensee’s FRN number 0003233681.<sup>1</sup> The County respectfully requests that the Commission expeditiously grant this waiver request to continue operating on existing 25 kHz channels through December 31, 2013, in order to allow the County to complete the implementation of a new countywide 12.5 kHz VHF public safety communications network. As required by Section 1.925, the County believes and will demonstrate in this petition that “(i) [t]he underlying purpose of the rule(s) would not be served or would be frustrated by application to the instant case, and that a grant of the waiver would be in the public interest; or (ii) [i]n view of unique or unusual factual circumstances of the instant case, application of the rule(s) would be inequitable, unduly burdensome or contrary to the public interest, or the applicant has no reasonable alternative.” The County further believes that this petition follows the recommended content guidelines defined in the Public Notice, DA-11-1189, and addresses the facts applicable to the specific narrowbanding migration path defined by the County.

---

<sup>1</sup> Wireless Telecommunications Bureau, Public Safety and Homeland Security Bureau, and Office of Engineering and Technology Provide Reminder of January 1, 2013 Deadline for Transition to Narrowbanding Operations in the 150-174 MHz and 421-512 MHz Bands and Guidance for Submission of Requests for Waiver and Other Matters, DA 11-189, released July 13, 2011.

## **I. BACKGROUND**

The Schuylkill County Board of Commissioners operates a County-wide 9-1-1 Systems that includes emergency and non-emergency dispatching for sixty-seven (67) municipalities within its boundaries. In addition, the County borders eight (8) of the Commonwealth's sixty-seven (67) counties which is supported in mutual aid incidents by first responders of neighboring Counties. Included in the County's 9-1-1 System is an extensive radio communications network utilized by approximately three-hundred (300) police officers, fifteen-hundred (1,500) fire fighters, five-hundred (500) emergency medical services and forty (40) emergency services associates to protect the lives and property of the one-hundred fifty thousand (150,000) residents and travelers within the county. Located in east-central Pennsylvania, the County covers 782 square miles largely situated over a spur of Appalachian Mountain chain. The rather rugged terrain makes two-way public-safety radio communications something of a challenge that has necessitated future development of eleven tower sites strategically located across the County.

Currently, the County 9-1-1 System is operating on an analog conventional 25 kHz LMR communications system, using eight Part 90 VHF channels. The current number of mobile and portable subscriber radios, of various ages, on the system is approximately twenty-five hundred (2,500) subscriber units. Those units are operating on seven transmit and receive sites and four receive only sites. Based on the radio equipment survey recently completed, about 90% of the existing subscriber radios are capable of operating in 12.5 kHz mode. The remaining 10% of the subscriber radios must be replaced because they operate only in 25 kHz mode. The base radios and system infrastructure are also of various age dating back to the early 1980's and are almost universally not capable of being converted to operate in 12.5 kHz mode.

The Schuylkill County Board of Commissioners are aware of the Commission's narrowbanding requirements for the VHF communications system. As a result, the Board had conducted outside studies as well as discussions with various local emergency service providers and groups to develop the most suitable course of action. With that said, the County is well in to the planning and implementation process as detailed below. The County is committed to meeting these narrowbanding requirements. For the reasons of the age of the County's existing communications equipment and the need for improved interoperability, coverage, features and capability offered by new state of the art mission critical communications networks, the County has made the decision to implement a narrowband VHF analog conventional simulcast system that is upgradable to digital Project 25. The County's goal is to upgrade and enhance the two-way mission critical communications throughout the County for the benefit and safety of life and property of all public safety and government users, and the citizens that are served.

Contingent on the budget of individual agencies operating on the new network, agencies will either purchase new 12.5 kHz subscriber mobile and portable radios that are Project 25 capable, or reprogram existing 12.5 kHz capable radios and replace only those that are not capable of 12.5 kHz operation. Regardless of subscriber migration, implementing a new 12.5 kHz system allows the County to migrate to more efficient spectrum use in the VHF band and thereby meet the Commission's underlying goals of its narrowband order.

In DA 11-1189, the Commission provided guidance to licensees for submission of Requests for Waiver of the narrowband deadline. It emphasized that Requests for Waiver of the deadline will be subject to a high level of scrutiny under the waiver standard set forth in Section 1.925 of the Commission's rules, which requires the waiver petitioner to demonstrate either that "(i) [t]he underlying purpose of the rule(s) would not be served or would be frustrated by application to the instant case, and that a grant of the waiver would be in the public interest; or (ii) [i]n view of unique or unusual factual circumstances of the instant case, application of the rule(s) would be inequitable, unduly burdensome or contrary to the public interest, or the applicant has no reasonable alternative."<sup>2</sup>

Relevant to the Commission's assessment of the Waiver Request, it recommended that petitioners provide addressing the following to show that the waiver Request has met the Commission's waiver standard under Section 1.925:<sup>3</sup>

- Steps already taken to plan for, initiate, and complete the transition to narrowband operations
- System size and complexity
- Whether system equipment is narrowband-capable or must be replaced or upgraded
- Whether the licensee plans additional system upgrades or improvements in addition to converting to narrowband operation
- Funding sources, including whether the licensee's budget requires government approval or a multi-year budget process
- Whether the licensee's narrowbanding schedule is affected by neighboring systems due to interoperability relationships or other interdependencies
- Plans to minimize the negative impact of extended wideband operations on co-channel and adjacent channel operations, including a description of the spectrum environment in the affected area

---

<sup>2</sup> 47.C.F.R. §§ 1.925(b)(3)

<sup>3</sup> DA 11-189, released July 13, 2011, page 3.

- If the licensee plans to migrate to a non-VHF/UHF band (*e.g.*, 700 MHz or 800 MHz), whether it will relinquish VHF/UHF spectrum once it has migrated and the amount of spectrum to be relinquished

The Commission further requested that licensees should provide a proposed timetable for completion of narrowbanding that includes the following elements:

- What steps in the process have been or will be taken prior to January 1, 2013
- Anticipated dates of commencement and completion of:
  - Replacement or retuning of mobiles/portables
  - Infrastructure replacement or retuning

When addressing the above factors, the Commission recommend that licensees explain how (i) they have worked diligently and in good faith to narrowband their systems expeditiously; (ii) their specific circumstances warrant a temporary extension of the deadline; and (iii) the amount of time for which a waiver is requested is no more than is reasonably necessary to complete the narrowbanding process.

## **II. NARROWBANDING STEPS TAKEN TO DATE OR PRIOR TO JANUARY 1, 2013**

The County implemented and completed a number of specific steps to date and is committed to completing additional steps by year end toward meeting the Commission's narrowband requirements, including but not limited to the following:

1. Completed a survey of existing mobile and portable subscriber radios and base station radio equipment to determine the capability of current radio equipment to operate in 12.5 kHz mode via a software update. Results are defined above.
2. Completed a countywide coverage and capacity analysis and developed the corresponding proposed site plan. The system being implemented will be expanded to an eleven site system, using the existing site locations, operating on eight channels in the VHF band. All sites will be simulcast sites operating in both transmit and receive mode on all channels. The system is designed to provide a guaranteed 95% mobile coverage throughout the County.
3. Developed a detailed plan and project completion schedule to migrate to a countywide interoperable Project 25 network, and obtained vendor detailed pricing proposal to design, implement and install the system, including option for new subscriber equipment, and provide ongoing maintenance

services. See the project timetable below.

<b>Milestone</b>	<b>Completion Date</b>
Contract Award	Sept. 30, 2012
Design Approval	Nov. 24, 2012
All Site/Infrastructure Equipment Ordered	Dec. 10, 2012
Fixed Equipment Installation	May 28, 2013
System Optimization	July 2, 2013
System Testing	July 16, 2013
Final Acceptance and System Cutover Completed	July 31, 2013
Subscriber Radio Reprogram or Replacement	September 30, 2013

4. Developed the funding request for the complete project and submitted to the Schuylkill County Bond Council for approval. We anticipate approval of the funding grant by September 30, 2012.
5. County will issue contract with the chosen vendor directly following the funding approval by the Bond Council.
6. System design will be completed by vendor and approved by the County, and all site and infrastructure equipment will be ordered.

Pursuant to the Section 1.925 of the FCC rules, the County has no other viable alternative than to proceed with the plans currently in place. Insufficient time exists to properly plan and execute an alternative approach which would satisfy the January 1, 2013 deadline. Because the aging base radios and system infrastructure are not capable of being converted to operate in 12.5 kHz mode, the system needs to be replaced before any subscriber radios can be reprogrammed to 12.5 kHz efficiency operation. Such mandatory replacement of the infrastructure provides the County the opportunity to migrate to a new state of the art countywide network that will provide our first responders with an effective and reliable communications network that will promote safety of life and property, and would be in the public interest. Failure to provide the system in lieu of another narrowbanding alternative will be inequitable, unduly burdensome and contrary to public interest.

### **III. REQUEST FOR WAIVER**

Schuylkill County has planned for the replacement of its aging communications system and is committed to meeting the FCC's narrowbanding requirements as defined in this Request for Waiver. The County fully expects to meet this mandatory narrowbanding requirement as quickly as possible, in line

with the above project completion schedule. Because most of our system infrastructure equipment is not capable of conversion to 12.5 kHz operation, we are in the process of replacing our system with a VHF analog conventional simulcast system. All existing infrastructure, including (but not limited to) base stations, antennas, and coax systems, will be replaced by new state of the art 12.5 kHz equipment. To further ensure future use and protection of the County's investment, the base stations are software upgradable to operate in the Project 25 Phase I digital standard in 12.5 kHz FDMA mode and the Project 25 Phase II standard in 12.5 kHz TDMA mode. Depending on the budget of individual agencies operating on the new network, agencies will either purchase new 12.5 kHz subscriber mobile and portable radios that are Project 25 capable, or reprogram existing 12.5 kHz capable radios and replace only those that are not capable of 12.5 kHz operation. New radios implemented on the network will also be capable of 12.5 kHz Project 25 digital operation. This allows the County and participating agencies operating on the new countywide network to migrate from the initial 12.5 kHz analog operation to Project 25 digital modes in the future as their individual budgets permit. It also allows us to more easily maintain interoperability with our neighboring mutual aid agencies, including the Pennsylvania State Police, as their systems also migrate to meet the Commission's narrowbanding mandate. The County is still evaluating the option of implementing the system initially using six channels for analog conventional simulcast and two channels for Project 25 Phase I digital conventional simulcast. However, that decision does not impact the system implementation timetable included above.

Per the Waiver Request filed by the Pennsylvania State Police (PSP), that agency currently plans to replace its 25 year old VHF network operating in 25 kHz, which is not capable of 12.5 kHz operation, but is not scheduled to complete that conversion until December, 2014.<sup>4</sup> In addition to the installation of a new statewide 800 MHz network over the last number of years, the PSP is installing a VHF narrowband repeater system, which when used with the mobile radios will provide improved off-network coverage, additional coverage in rural areas where 800 MHz is terrain limited, additional interoperability using shared VHF frequencies, and allow for back-up communications during obtrusive maintenance windows required by telecommunication networks. Analog VHF is the most cost-effective means to fill coverage gaps and provide redundancy required with both factors increasing overall statewide reliability of public safety communications.<sup>5</sup>

The PSP provides direct police protection for about one fourth of the County's municipalities. In addition, PSP officers provide mutual aid in many instances to the County police officers in times of emergency and at incident scenes. To facilitate such interoperability, a closer alignment of the PSP and County conversion to narrowband VHF communications would be of great benefit. Although a requested

---

<sup>4</sup> Request for Waiver of Commission Rules, Pennsylvania State Police, filed January 25, 2012.

<sup>5</sup> Pennsylvania State Police Waiver Request, page 5.

extension by the County until December 31, 2013 still precedes the December 2014 requested extension date by the PSP, it is anticipated that the majority of 2,500 mobile radios in use by the PSP in this area of the State will have already transitioned.

The County is confident that there will be no interoperability relationships with other public safety agencies that will be negatively impacted by the Commission's grant of this waiver. To the contrary, the County argues that a waiver grant will benefit interoperability in the region because several other counties in Pennsylvania, in addition to the PSP noted above, have also filed similar Waiver Requests with the Commission to continue 25 kHz operation until they can convert to 12.5 kHz narrowband operation or complete their move to new systems in other bands. To date, these include Indiana County and Blair County in West Central Pennsylvania, nearby Lancaster County and Bucks County, and bordering Northumberland County and Berks County. Further, the County does not anticipate that any co-channel or adjacent channel licensees will be impacted by the County's continued operation at 25 kHz if the Commission grants this Waiver. The County commits to working with other licensees on a case by case basis to resolve any negative impact from the County's continued wideband operations during the waiver period.

The County requests that the Commission expeditiously grant this waiver request to continue operating on existing 25 kHz channels through December 31, 2013, in order to allow the County to complete the implementation of a new countywide 12.5 kHz public safety communications network. This requested 12 month extension allows the County time to complete the system per the optimum milestone schedule shown above plus a reasonable time for schedule slippage and unforeseen setbacks, such as severe weather conditions, delay in availability of parts and equipment, and public safety emergencies. The underlying purpose of the Commission's narrowbanding rule would not be frustrated by the Commission grant of this Waiver. The Waiver Request does not extend the date for narrowbanding the County's 25 kHz operation to a lengthy or indefinite date, but instead petitions for a finite time extension to permit the implementation of a new interoperable countywide network.

#### **IV. CONCLUSION**

As detailed above, Schuylkill County believes we have shown that a grant of this Waiver Request for a 12 month period would be in the public interest, could actually promote extended interoperability with neighboring Counties and the Pennsylvania State Police, not harm any other licensee, and not frustrate the Commission's underlying goals of its narrowbanding order. The County urges the Commission to recognize that we are in process of implementing a new narrowband 12.5 kHz VHF analog conventional simulcast system that is upgradable to digital Project 25, and that we have no other viable alternative than to proceed with the plans currently in place.

The County respectfully requests that the Commission expeditiously grant this Waiver Request to continue operating on existing 25 kHz channels through December 31, 2013, to allow the County to complete the implementation of a new countywide 12.5 kHz VHF public safety communications network.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Scott D. Krater". The signature is fluid and cursive, with the first name "Scott" and last name "Krater" clearly distinguishable.

Scott D. Krater, Director  
Schuylkill County 9-1-1  
435 N. Centre St.  
Pottsville, PA 17901

08/24/2012